Trypanothione synthetase-IN-2

Cat. No.: HY-151150

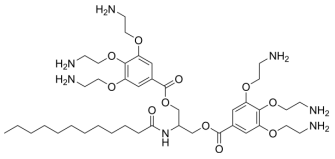
Molecular Formula: $C_{41}H_{69}N_7O_{11}$

Molecular Weight: 836.03

Target: Parasite

Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Trypanothione synthetase-IN-2 (Compound 3) is a competitive Leishmania infantum trypanothione synthetase (TryS) inhibitor with an IC_{50} of 5.4 μM when triamine spermidine is as polyamine S[1].
IC_{50} & Target	Leishmania
In Vitro	Trypanothione synthetase-IN-2 (Compound 3) (0-75 μM; 24 or 72 h) shows leishmanicidal activity without cytotoxicity[1]. Trypanothione synthetase-IN-2 displays a classical competitive mechanism of inhibition against the polyamine substrates[1] .

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay[1]

Cell Line:	L. infantum, HepG2
Concentration:	0-75 μM
Incubation Time:	24 h (L. infantum axenic amastigotes) or 72 h
Result:	Showed leishmanicidal activity with EC_{50}s of 7.3 ± 0.5 μM and 17.9 ± 0.4 μM against axenic amastigotes and intracellular amastigotes, respectively. Showed cytotoxicity with a CC_{50} of >75 μM against HepG2 cells.

REFERENCES

[1]. Alcón-Calderón M, et al. Identification of L. infantum trypanothione synthetase inhibitors with leishmanicidal activity from a (non-biased) in-house chemical library. European Journal of Medicinal Chemistry, 2022: 114675.

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